

UNI

CASE
SUMMARY

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UNIV. OF NORTHERN IOWA

Cedar Falls, Iowa
Black Hawk County

Intern: Alexander Knight
Major: Sociology/Economics
School: University of Northern Iowa



The Agency

The University of Northern Iowa (UNI), founded in 1876, is the smallest of the three State universities. The University has approximately 14,000 students, 12,000 of which are undergraduates. Degrees are offered in the colleges of Business Administration, Education, Humanities and Fine Arts, Natural Sciences, Social and Behavioral Sciences, and the Graduate College. The University is well known for its program of teacher education.

Project Background

UNI recycles many different goods, from paper and cardboard to scrap metal and computer monitors. Normal organic waste is landfilled, and hazardous waste, such as chemistry waste, is disposed properly as a hazardous waste stream. Non-hazardous goods which are not traditionally recycled are landfilled.

Incentives to Change

There are several reasons for UNI to actively address their hazardous and non-hazardous waste. The EPA has begun to examine with scrutiny the activities and practices of institutions of higher education, and has handed out large fines for failure to compliance with RCRA regulations. UNI, and other universities, have come to be under more pressure from public, community, student and staff bodies to behave in a manner more concerned with the environment and environmentalism. Without a comprehensive aspects and impacts assessment, creation of an Environmental Management System (EMS) would be impossible.

Results

Following an IWRC walkthrough of the Physical Plant, a register of environmental aspects was recorded. Primary focus was placed on hazardous waste, though other wastes were listed. Impacts were researched for each aspect, and listed along with the current management practices, possible methods of influence and control of the waste stream, whether the stream is normal or abnormal, an assessment of procedures. This project will be used as the base for a growing EMS, providing a list of waste streams and their effects. The compiled information will ultimately serve as the basis for setting the EMS target goals and objectives.

The intern initiated a simple system of labeling to denote ages of paint stock to better encourage inventory rotation. The program is intended to reduce potential of hazardous releases of paint outside of a hazardous waste environmental management vendor. It also has the potential to educate painters to more efficiently use paint and University resources.

The Chemistry Department disposes of approximately 40 gallons of 14 assorted chemicals annually. Distillation and reuse of those chemicals could save over \$2,300 per year in purchasing and disposal. Equipment costs \$8,400 to \$16,000 depending on size; ROI is 51 months to 101 months. Implementation would reduce a significant hazardous waste stream for UNI.

It was proposed that Print Services test other varieties of blanket wash, a production chemical high in VOCs. Lower-VOC alternatives are available. Intern also proposed that the best opportunity for P2 would be to begin sending printing staff to industry trade shows.

Roughly 25 thermometers are broken annually in classrooms. Removing mercury thermometers would save \$2,200 to \$2,700 in cleanup, disposal, and replacement costs. At a cost of \$10 per replacement non-mercury thermometer, all thermometers, around 200, are being replaced as the budget permits, saving \$100 to \$400 per year until all thermometers are replaced.

Proposed expanding the existing computer monitor-recycling program. A two-phase program was developed that will begin with recycling 2,400 pounds of computer waste annually. The program has the potential to save \$7,500 per year in labor costs in addition to diverting a waste stream.

Proposed expanding current composting program, implementation delayed. Primarily increased awareness of composting possibilities among Physical Plant staff. Attempts were made to contact and recruit personnel in connection with the Department of Residence Dining Centers. The product of the composting project was mainly a compilation of information to be used by a composting manager, "The Composter's Handbook." This program was proposed but the implementation has been delayed.

Total opportunities for the University of Northern Iowa include a diversion of approximately 2,400 pounds or more of solid waste from landfills annually, the elimination or recycling of around 40 gallons of liquid hazardous waste, and about 750 or more pounds of hazardous solid waste. Cost savings for this institution total nearly \$10,000 annually without considering the potential savings stemming from a composting operation or reduced amounts of hazardous waste from Print Services.